

## EAST Search History

| Ref # | Hits  | Search Query   | DBs  | Default Operator | Plurals | Time Stamp       |
|-------|-------|--|--|------------------|---------|------------------|
| L1    | 0     | "20020003871" and interpolation                                | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/06/20 13:03 |
| L2    | 0     | "20020003871" and (phase adj1 interpolation)                   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/06/20 13:05 |
| L3    | 1     | "20020003871"  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/06/20 13:57 |
| L4    | 1377  | data with voice with synchroniz\$5                             | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/06/20 13:58 |
| L5    | 7     | data with voice with synchroniz\$5 with PSTN                   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/06/20 14:00 |
| L6    | 1     | data with voice with synchroniz\$5 with (phase adj1 detect\$3) | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/06/20 14:00 |
| S1    | 3793  | 375/222  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/06/20 13:03 |
| S2    | 50    | "4494211"  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2004/03/29 09:27 |
| S3    | 11    | "5991311"  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2004/03/29 10:55 |
| S4    | 11844 | synchroniz\$3 adj1 clock                                       | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2004/03/29 11:00 |
| S5    | 33    | synchroniz\$3 adj1 clock and dsl                               | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2004/03/29 11:06 |

## EAST Search History

|     |    |   |   |    |     |                  |
|-----|----|---|---|----|-----|------------------|
| S6  | 5  | synchroniz\$3 adj1 clock and dsl<br>and pstn                  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2005/10/17 10:43 |
| S7  | 0  | synchroniz\$3 adj1 clock and dsl<br>adj1 transceiver and pstn | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/03/29 11:08 |
| S8  | 2  | synchroniz\$3 adj1 clock and dsl<br>adj1 transceiver          | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/03/29 11:09 |
| S9  | 60 | dsl adj1 transceiver  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/03/29 11:09 |
| S10 | 31 | dsl adj1 transceiver and pstn                                 | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/03/29 11:09 |
| S11 | 0  | dsl adj1 treansceiver and<br>multiplexer                      | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/03/30 10:33 |
| S12 | 27 | dsl adj1 transceiver and<br>multiplexer                       | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/03/30 10:33 |
| S13 | 6  | "6151356"   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/03/30 14:18 |
| S14 | 13 | "5534827"   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/03/30 14:18 |
| S15 | 16 | "5502750"   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/12/22 13:25 |
| S16 | 9  | "6310909"   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2004/12/22 14:19 |

## EAST Search History

|     |         |                                      |   |    |     |                  |
|-----|---------|--------------------------------------|---|----|-----|------------------|
| S17 | 12      | "591311"                             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2004/12/22 14:19 |
| S18 | 19      | "5991311"                            | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2004/12/22 14:32 |
| S19 | 0       | "5991311" and synchroniz\$5          | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2004/12/22 14:33 |
| S20 | 7       | "5991311" and synchroniz\$5          | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2004/12/22 14:33 |
| S21 | 18      | "5991311"                            | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/12/23 14:44 |
| S22 | 9       | "6310909"                            | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2004/12/23 14:44 |
| S23 | 2220591 | code                                 | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/08/05 09:33 |
| S24 | 1       | "20020003871"                        | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2005/10/17 10:05 |
| S25 | 868     | 375/225                              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 13:03 |
| S26 | 1       | synchronization and<br>"20020003871" | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 13:31 |

## EAST Search History

|     |     |  |   |    |     |                  |
|-----|-----|--|---|----|-----|------------------|
| S27 | 538 | synchronization and PSTN and DSL                                     | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 13:31 |
| S28 | 44  | synchronization and PSTN and DSL<br>and upsampl\$4                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 13:56 |
| S29 | 13  | ((data and voice) adj1<br>synchronization)                           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 14:05 |
| S30 | 0   | ((ADSL and PSTN) adj1<br>synchronization)                            | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 14:06 |
| S31 | 2   | ((ADSL and PSTN) with<br>synchronization)                            | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 14:12 |
| S32 | 471 | ((ADSL and PSTN) and<br>synchronization)                             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 14:13 |
| S33 | 0   | ((ADSL and PSTN) adj1 clock) and<br>(synchronization)                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 14:13 |
| S34 | 47  | ((ADSL and PSTN)) and<br>upsampl\$3 and (synchronization)            | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 14:16 |
| S35 | 25  | ((ADSL and PSTN)) and<br>upsampl\$3 and (synchronization)<br>and pcm | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/17 14:16 |
| S36 | 1   | "20020003871" and (second adj1<br>converter adj1 circuit)            | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 14:05 |

## EAST Search History

|     |   |  |   |    |     |                  |
|-----|---|--|---|----|-----|------------------|
| S37 | 1 | "20020003871" and ( converter<br>adj1 circuit) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 13:02 |
| S38 | 1 | "20020003871" and ( compand\$2)                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 13:30 |
| S39 | 1 | "20010033583" and format                       | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 13:32 |
| S40 | 0 | "20010033583" and (linear adj1<br>format)      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 13:32 |
| S41 | 0 | "20010033583" and (companded<br>adj1 format)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 13:32 |
| S42 | 0 | "20010033583" and (PCM adj1<br>format)         | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 13:32 |
| S43 | 1 | "20010033583" and (PCM)                        | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 14:04 |
| S44 | 0 | "20010033583" and (phase adj1<br>offset)       | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 14:05 |
| S45 | 0 | "20010033583" and clipping                     | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 14:05 |
| S46 | 0 | "20010033583" and slipping                     | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 14:05 |

## EAST Search History

|     |        |                              |   |    |     |                  |
|-----|--------|------------------------------|---|----|-----|------------------|
| S47 | 2      | "20020003871" and (slipping) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/26 10:31 |
| S48 | 101221 | (slipping)                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 14:08 |
| S49 | 16     | (sample adj1 slipping)       | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 15:38 |
| S50 | 2      | "20030063663"                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 15:39 |
| S51 | 11     | "6052349"                    | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/25 15:39 |
| S52 | 11     | "6052349"                    | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/26 13:19 |
| S53 | 2      | "20020049933"                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/26 13:19 |
| S54 | 1      | "5892694" and lip\$4         | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2005/10/27 09:40 |
| S55 | 3      | "5892694" and slip\$4        | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2005/10/27 09:56 |
| S56 | 175    | (sampl\$3 adj1 slip\$4)      | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2005/10/27 09:57 |

## EAST Search History

|     |    |  |  |    |     |                  |
|-----|----|--|--|----|-----|------------------|
| S57 | 4  | (sampl\$3 adj1 slip\$4) and PSTN                               | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 10:55 |
| S58 | 1  | (sampl\$3 adj1 slip\$4) and<br>upsampl\$3                      | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 10:04 |
| S59 | 0  | "20010033583" and phase  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 10:04 |
| S60 | 0  | "6169763" and DSL  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 10:05 |
| S61 | 3  | "6169763" and data   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 10:05 |
| S62 | 1  | "6169763" and voice  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 10:06 |
| S63 | 2  | "6169763" and PSTN   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 10:06 |
| S64 | 2  | "6169763" and phase  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 10:06 |
| S65 | 19 | (sampl\$3 adj1 slip\$4) and<br>synchronization                 | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 12:31 |
| S66 | 0  | (sampl\$3 adj1 slip\$4) and<br>synchronization and upsampl\$3  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 10:59 |
| S67 | 0  | (sampl\$3 adj1 slip\$4) and<br>synchronization and up-sampl\$3 | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 11:00 |
| S68 | 2  | "6643270" and phase  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 12:32 |



## EAST Search History

|     |      |  |  |    |     |                  |
|-----|------|--|--|----|-----|------------------|
| S69 | 1    | "6643270" and shift\$3   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:25 |
| S70 | 4860 | (phase adj1 offset)  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:26 |
| S71 | 0    | (phase adj1 offset) and<br>"20010033583"                               | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:25 |
| S72 | 162  | (phase adj1 offset) and PSTN   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:26 |
| S73 | 94   | (phase adj1 offset) and PSTN and<br>synchroniz\$3                      | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:26 |
| S74 | 70   | (phase adj1 offset) and PSTN and<br>synchroniz\$3 and voice            | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:26 |
| S75 | 70   | (phase adj1 offset) and PSTN and<br>synchroniz\$3 and voice and data   | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:27 |
| S76 | 71   | (phase adj1 offset) and PSTN and<br>synchroniz\$3 and shift\$3         | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:28 |
| S77 | 17   | (phase adj1 offset) and PSTN and<br>synchroniz\$3 and shift\$3 and PCM | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:31 |
| S78 | 0    | (phase adj1 offset) with PSTN  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:32 |
| S79 | 84   | (phase) with PSTN  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:38 |
| S80 | 0    | "20020003871" and multiplexer  | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:39 |



## EAST Search History

|     |     |   |   |    |     |                  |
|-----|-----|---|---|----|-----|------------------|
| S81 | 1   | "20020003871" and multiplexer                               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:39 |
| S82 | 1   | "20020003871" and demultiplexer                             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 14:40 |
| S83 | 1   | "20020003871" and (phase adj1<br>interpolat\$4)             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 15:30 |
| S84 | 1   | "20020003871" and shift\$3                                  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 15:48 |
| S85 | 105 | phase with PSTN   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 15:48 |
| S86 | 1   | (phase adj1 offset) with PSTN                               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 15:48 |
| S87 | 5   | (phase adj1 shift\$3) with PSTN                             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 15:49 |
| S88 | 3   | (phase ) with PSTN with<br>synchroniz\$3                    | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 15:50 |
| S89 | 6   | (phase ) with PSTN with<br>synchroniz\$5                    | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 16:02 |
| S90 | 1   | (phase adj1 lock adj1 loop) with<br>PSTN with synchroniz\$5 | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 15:54 |

## EAST Search History

|     |    |                        |   |    |     |                  |
|-----|----|------------------------|---|----|-----|------------------|
| S91 | 14 | shift\$3 and "5666366" | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 16:04 |
| S92 | 31 | "5666366"              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/10/27 16:04 |
| S93 | 15 | "6078611"              | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2005/10/31 09:24 |
| S94 | 1  | "20020061052"          | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2005/10/31 09:30 |
| S95 | 1  | "20020061052"          | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2005/10/31 09:53 |
| S96 | 1  | "20020176481"          | USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              | OR | OFF | 2005/10/31 09:53 |